

What is claimed is:

- 1 1. A process for use in a database system, comprising:
2 receiving a query for data in the database system;
3 determining if one or more resources are accessed in response to the query;
4 tracking an amount of usage of the accessed one or more resources; and
5 storing an indication of the tracked amount of usage.
- 1 2. The process of claim 1, further comprising communicating the indication to a
2 routine for calculating a royalty.
- 1 3. The process of claim 1, wherein determining if the one or more resources are
2 accessed comprises determining if at least one of a user-defined data type, user-defined
3 data type method, and user-defined function is accessed.
- 1 4. The process of claim 1, wherein storing the indication comprises storing the
2 indication in a data dictionary.
- 1 5. An article comprising at least one storage medium containing instructions that
2 when executed cause a database system to:
3 receive a query for data in the database system;
4 determine if one or more resources are accessed in response to the query;
5 track an amount of usage of the accessed one or more resources; and
6 store an indication of the tracked amount of usage.
- 1 6. The article of claim 5, wherein the instructions when executed cause the database
2 system to further communicate the indication to a routine for calculating a royalty.
- 1 7. The article of claim 5, wherein the instructions when executed cause the database
2 system to determine if the one or more resources are accessed by determining if at least
3 one of a user-defined data type, user-defined data type method, and user-defined function
4 is accessed.

1 8. The article of claim 5, wherein the instructions when executed cause the database
2 system to store the indication in a data dictionary.

1 9. A process for use in a database system, comprising:
2 storing data according to a user-defined data type in the database system;
3 tracking usage of the user-defined data type; and
4 storing an indication of the tracked usage.

1 10. The process of claim 9, further comprising communicating the indication to a
2 routine for calculating a royalty.

1 11. The process of claim 9, further comprising providing a flag to indicate whether
2 usage of the user-defined data type is to be tracked.

1 12. The process of claim 11, further comprising accessing the flag in response to a
2 query for creating a table that contains an attribute according to the user-defined data
3 type.

1 13. The process of claim 12, further comprising receiving the query, the query
2 comprising a Structured Query Language CREATE TABLE statement.

1 14. The process of claim 11, wherein providing the flag comprises storing the flag in
2 a table of a data dictionary.

1 15. The process of claim 14, further comprising:
2 storing data according to second user-defined data type; and
3 storing a second flag associated with the second user-defined data type in the
4 table to indicate whether to track usage of the second user-defined data type.

1 16. The process of claim 11, wherein providing the flag comprises providing the flag
2 having a state set to one of at least two values, a first value indicating tracking of usage of
3 the user-defined data type, and a second value indicating tracking of usage of the user-
4 defined data type and methods associated with the user-defined data type.

1 17. The process of claim 9, further comprising:
2 providing a method associated with the user-defined data type;
3 tracking usage of the method; and
4 storing a second indication of the tracked usage of the method.

1 18. The process of claim 17, wherein storing the indications comprises storing the
2 indications in a data dictionary.

1 19. The process of claim 18, wherein storing the indications comprises storing the
2 indications in respective tables in the data dictionary, the tables comprising a first table
3 containing information defining the user-defined data type, and a second table containing
4 information defining the method.

1 20. The process of claim 17, further comprising:
2 providing a user-defined function; and
3 tracking usage of the user-defined function.

1 21. The process of claim 20, further comprising:
2 associating an authorization code with at least one of the user-defined data type,
3 method, and user-defined function; and
4 using the authorization code to determine if access of the at least one user-defined
5 data type, method, and user-defined function is allowed.

1 22. An article comprising at least one storage medium containing instructions that
2 when executed cause a database system to:

3 track usage of a user-defined data type object, the user-defined data type object
4 comprising at least one of a user-defined data type attribute and a user-defined data type
5 method; and
6 store an indication of usage of the user-defined data type object.

1 23. The article of claim 22, wherein the instructions when executed cause the
2 database system to further communicate the indication to a module for calculating royalty
3 based on the indication of usage.

1 24. The article of claim 22, wherein the indication comprises a count, and wherein the
2 instructions when executed cause the database system to further increment the count each
3 time a table is created containing the user-defined data type attribute.

1 25. The article of claim 22, wherein the indication comprises a count, and wherein the
2 instructions when executed cause the database system to further increment the count each
3 time the user-defined data type method is invoked.

1 26. The article of claim 22, wherein the instructions when executed cause the
2 database system to store the indication in a data dictionary.

1 27. The article of claim 26, wherein the instructions when executed cause the
2 database system to further provide a flag in the data dictionary to indicate that usage of
3 the user-defined data type object is to be tracked.

1 28. The article of claim 27, wherein the instructions when executed cause the
2 database system to further access the flag each time a table containing the user-defined
3 data type attribute is created.

1 29. The article of claim 27, wherein the instructions when executed cause the
2 database system to further access the flag each time the user-defined data type method is
3 invoked.

1 30. The article of claim 29, wherein the instructions when executed cause the
2 database system to further track usage of a user-defined function.

1 31. A database system, comprising:
2 a storage subsystem to store a table; and
3 a controller adapted to:
4 create the table containing an attribute according to a user-defined data
5 type, and
6 update an indication representing usage of the user-defined data type in
7 response to creating the table.

1 32. The database system of claim 31, wherein the controller is adapted to further:
2 create a second table containing another attribute according to the user-defined
3 data type, and
4 update the indication in response to creating the second table.

1 33. The database system of claim 32, wherein the indication comprises a count
2 incremented by the controller.

1 34. The database system of claim 31, the storage subsystem to store a data dictionary,
2 the indication contained in the data dictionary.

1 35. The database system of claim 34, wherein the data dictionary further contains a
2 flag indicating that the user-defined data type is to be tracked.

1 36. The database system of claim 31, wherein the controller is adapted to further:
2 create a second table containing an attribute according to a second user-defined
3 data type, and
4 update a second indication representing usage of the second user-defined data
5 type in response to creating the second table.

1 37. The database system of claim 31, further comprising plural access modules to
2 access plural portions of the table in parallel.

1 38. The database system of claim 31, further comprising a method associated with the
2 user-defined data type,
3 the controller adapted to track usage of the method.

1 39. The database system of claim 38, wherein the controller is adapted to track usage
2 of the method by incrementing a count in response to each innovation of the method.

1 40. The database system of claim 38, further comprising a user-defined function,
2 the controller adapted to track usage of the user-defined function.